Modicon
FactoryCast HMI
140 NWM 100 00
Instruction Sheet
31004691 04 Version 1.0

FactoryCast HMI 140 NWM 100 00 Instruction Sheet

ReadMe First

Before you can use your **140 NWM 100 00** module, you must configure it with an Internet Protocol (IP) address. Configure your module by using either one of the two following methods.

- Create a new user-configured IP address
- Use the derived default address

Note: Operating on a Corporate Network
Before placing the 140 NWM 100 00 on a corporate network, Schneider Electric recommends that you discuss the installation with your MIS department.

Patent Registration

Quantum Automation Series equipment is protected by U.S. Patent number 5,302,136 and by European Patent number 93202982.0-

The NWM is protected by U.S. Patent numbers 4897777, 4992926, 4969083, 5131092, 5151978, 5159673, 5245704, 5251302, 5805442, 5975737, 5982362, 6061603, 6151625, 6285454.

Other patents pending.

User-Configured IP Address

A user-configured IP address requires you to assign the IP address.

Therefore, if a new IP address must be assigned, obtain it from your system administrator. Assign the new IP address using your Concept Programming Panel.

Record the IP network address on the space located on the front panel of the module behind the door.

For more information refer to the latest version of the *Concept for Quantum User Manual* (840USE42800).

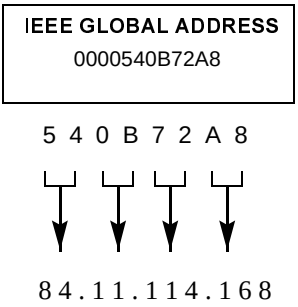
Derived Default IP Address

If you choose not to assign the module an IP address from a DHCP or BOOTP server, you may connect the module using its default IP Address, which is derived from its Mac address. To do this proceed as follows.

1. Locate the global address label on the front panel of the module.

2. Note the right most eight digits.

3. Convert the digits from hexadecimal to decimal. Each pair of hexadecimal numbers will result in a decimal number between 0 and 255. This is the default IP address.



The hexadecimal conversion can be done with a scientific calculator or a computer-based calculator program.

Record the IP network address on the writable label located on the front panel of the module.

Other Tools for IP Address Assignment

BootP Lite and the EthCfg tool (included in Concept).

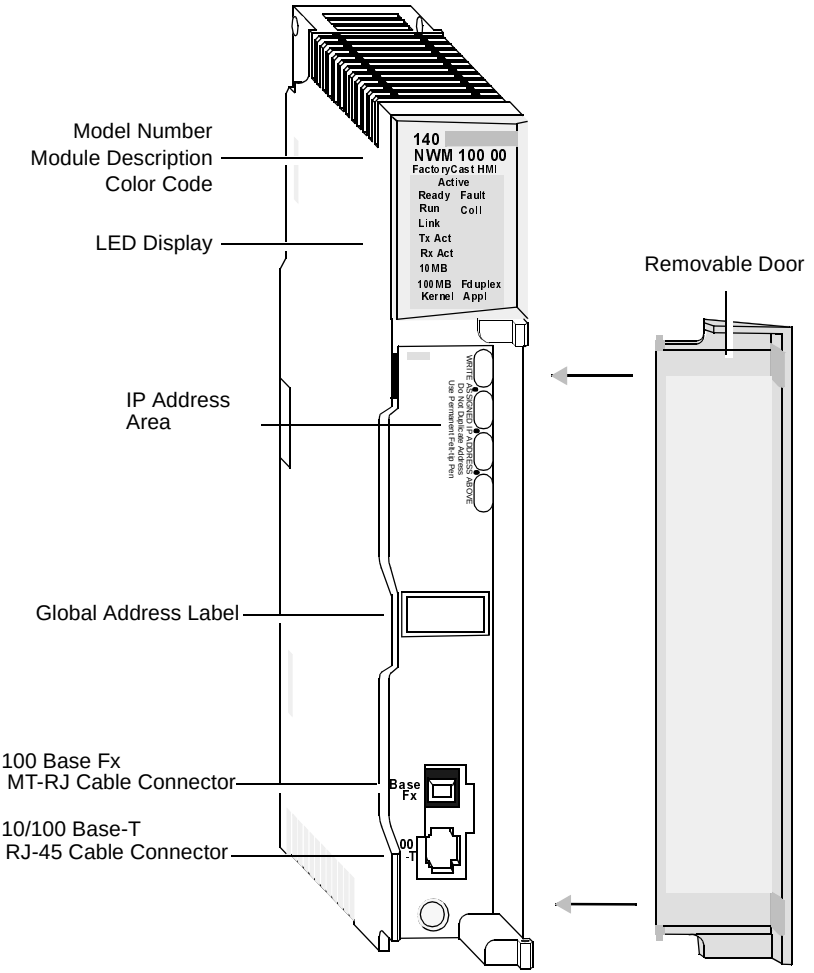
A1-Channel Devices

The **140 NWM 100 00** module is capable of communicating over either:

- 10 Base-T or 100 Base -T network
- 100 Base-FX Ethernet network at any given time, but not both networks at the same time.

Note: Do not attempt to connect module directly to another device. The cable for each device must be routed through an Ethernet hub switch for the network to function properly.

Illustration This illustration depicts the **140 NWM 100 00**.



Module Specification Table

Key specifications for the Quantum **140 NWM100 00** module are:

Communication Ports	• One auto-sensing 10/100Base-T shielded twisted pair (RJ-45 connector) port • One 100Base-FX (MT-RJ connector) port Both ports work in the same way but only one at a time.		
LED Indicators	**Label**	**Color**	**Description**
	Active	Green	Indicates that the backplane is operating.
	Ready	Green	Indicates that the module is healthy.
	Fault	Red	Indicates when the NWM is in a crash state.
	Run	Green	Flashes to indicate diagnostic code, as described in the *Run LED Status* table below.
	Coll	Red	Flashes when Ethernet collisions occur.
	Link	Green	On when Ethernet link is active.
	TxAct	Green	Flashes to indicate Ethernet transmission.
	RxAct	Green	Flashes to indicate Ethernet reception.
	Kernel	Amber	On when in Kernel mode. Flashing while in download mode.
	10MB	Green	On when the module is connected to a 10 Megabit network.
	100MB	Green	On when the module is connected to a 100 Megabit network.
	Fduplex	Green	On when Ethernet is operating in the full duplex mode.
	Appl	Green	On when crash log entry exists.
Bus Current Required	900 mA		
Power Dissipation	4.5 W		
Fuse	None		
Programming Software			
Type and Version	Concept, Ver. 2.6 with SR2. Please also see the “Concept V2.6 Configuration for NWM 100 00 Module” section of this document.		
Firmware			
NOE Upgradable	Field upgradable via FTP or Programming Panel.		

Run LED Status

The state of the *Run LED* indicator is either steady or flashing. Thus, the *Run LED* indicator provides diagnostic information. The following table lists each available state of the *Run LED* indicator:

Indicator State	Status
On (steady)	Normal operation: The NWM module is ready for network communication.
Number of Flashes in sequence	
One	Not used
Two	Not used
Three	No Link: The network cable is not connected or is defective.
Four	Duplicate IP address
Five	No IP address: The module is attempting to obtain an IP address from a BOOTP server.
Six	Using default IP address
Seven	No valid executive NWM present
Eight	Invalid IP configuration (Likely cause: Default gateway is not on the same subnet mask as the module.)
Nine	Flash file system is corrupted

FactoryCast Web Server

This module contains an enhanced embedded Web server, called the FactoryCast Web server, which you may customize.

This Web server allows the following browser functions.

- Display controller's configuration, real time register values, and personality
- Display Ethernet statistics for the node
- Display status, configuration, and register values of any remote / distributed I/O
- Create and view graphic real time templates using Java beans
- Create and view real time templates in spreadsheet format
- Create custom Web pages
- Use *Concept* symbols or direct addresses
- Use SNMP with private MIB

Note: The embedded Web site must be viewed using Internet Explorer, Version 4.0 with SP2 (or higher).

Once the module has been installed, these pages can be viewed across the World Wide Web. Obtain the IP address or URL from you system administrator. Then type the address into your browser.

For more information on the FactoryCast Web server, obtain a copy of the latest version of the *FactoryCast User's Guide* (31001229) from your distributor or local sales office.

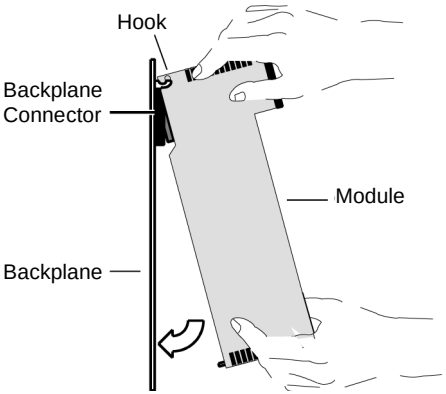
Key Features

This module is a FactoryCast HMI that provides a PLC with access to an Ethernet network. The module can plug into any available slot in a Quantum backplane and is capable of being hot swapped. The key features are listed below.

Feature	140 NWM 100 00
HTTP Server	yes
SNMP V2 Agent	yes
Flash File System	yes
FTP Server	yes
Modbus Messaging	yes
Schneider Private MIB	yes
FactoryCast Application	yes
User Programmable Webpages	yes
Java Virtual Machine	yes

Installation

Perform the following steps to install a **140 NWM 100 00** module..

Step	Action
1	Holding the module at an angle, mount it on to the two hooks located near the top of the backplane. 
2	Swing the module down so its connector engages the backplane connector.
3	Using a Phillips head screw driver, tighten the screw at the bottom of the module between 2 and 4 in-lbs. or between .22 and .45 Newton meters of torque.

Concept V2.6 Configuration for NWM 100 00 Module	As the first step of configuring this module, you need to use the ModConnect tool once. This tool is supplied with Concept V2.6 and will install the supplied NWM 100.mdc file. This process will import the 140 NWM 100 00 module into the Concept moduledatabase and will copy the associated help file (NWM100.hlp) into the Concept directory.
Additional Information	For complete information concerning the **140 NWM 100 00** modules, please obtain a copy of the *FactoryCast HMI User Guide* from your distributor or local sales office. A copy of this manual can also be obtained from the Schneider Electric web site.

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Printed in

September 2003